PIKE COUNTY

(Pike County Water Service Area Map)

- Estimated 1999 population of 72,000--47% on public water
- Estimated 2020 population of 70,400--77% on public water
- 600 miles of water lines, with plans for additional 440 miles
- Estimated funding needs for public water 2000-2005--$19,000,000
- Estimated funding needs for public water 2006-2020--$29,000,000

Pike County had an estimated population of 72,000 (27,827 households) in 1999. Some 13,000 households (approximately 47%) were served by public water. The remainder relied primarily on wells. It is projected that the population of Pike County will be 70,400 (30,300 households) in the year 2020. Proposed water line extensions in the period 2000-2020 will serve another 9,200 households.

Estimated Costs - Proposed Projects, 2000-2005

COUNTY/System		New Customers	Cost	Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	in $1000	in $1000	in $1000	in $1000	in $1000	in $1000
PIKE								-
Mountain W/D	117	2616	7,000			8,000	3,000	18,000
Pikeville				1,000				1,000
Total	**117**	**2616**	**7,000**	**1,000**		**8,000**	**3,000**	**19,000**

Estimated Costs - Proposed Projects, 2006-2020

COUNTY/System		New Customers	Cost	Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	in $1000	in $1000	in $1000	in $1000	in $1000	in $1000
PIKE								-
Mountain W/D	320	6590	16,000			8,000	4,000	28,000
Pikeville				1,000				1,000
Total	**320**	**6590**	**16,000**	**1,000**		**8,000**	**4,000**	**29,000**

PUBLIC WATER SYSTEMS

There are three major public systems in Pike County, two municipal systems, one of which is very small, and a water district: there are also 4 small private community systems and 10 non-community systems. All three major systems have water treatment plants, however the water district supplies only a small percentage of its customers with water it produces. The water district purchases the majority of its water from two municipal systems, Pikeville and

WATER SERVICE AREAS
PIKE COUNTY
Kentucky

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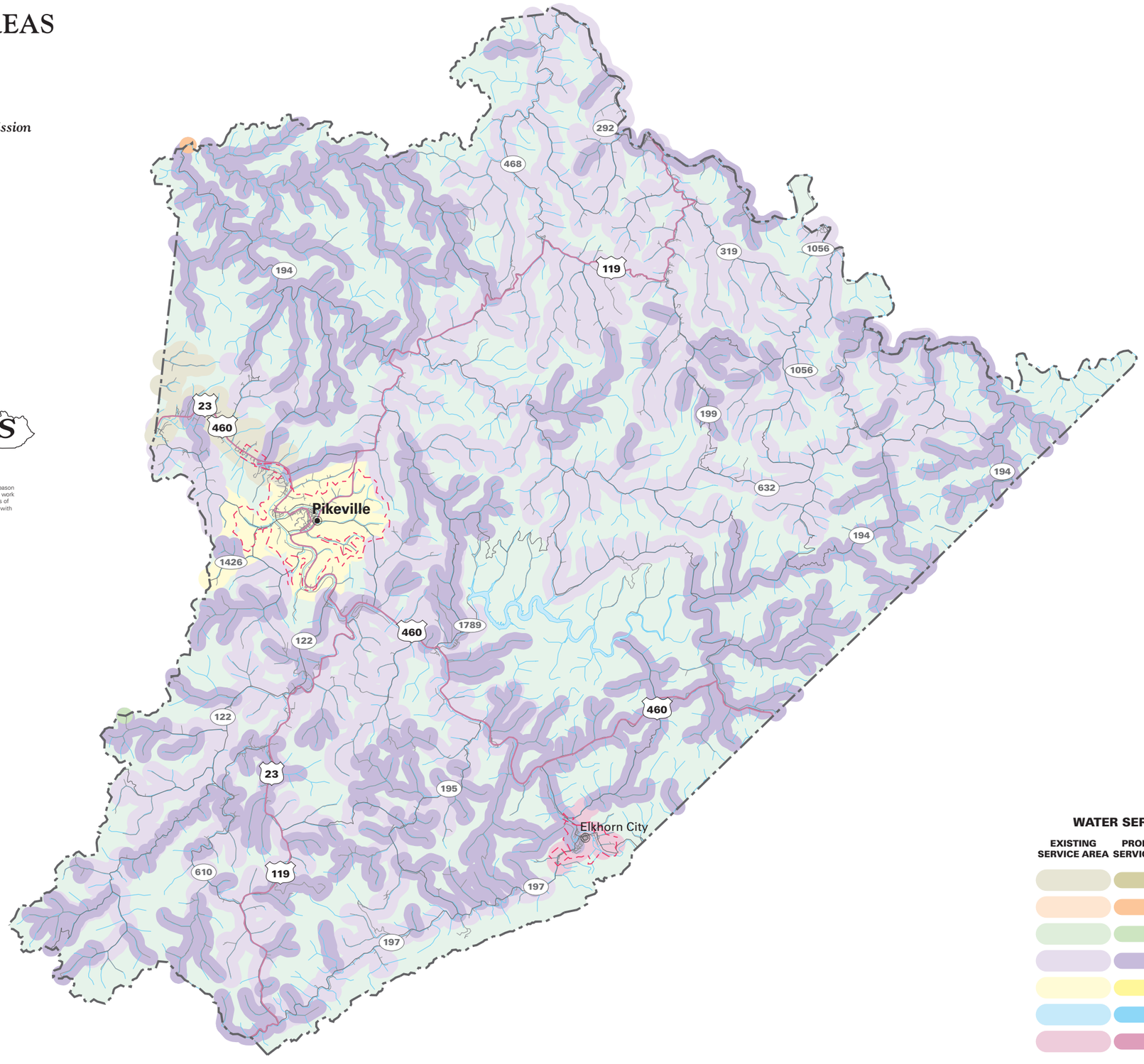
EDUCATION PAYS

KGS



WATER SERVICE STATUS BY OWNER

EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		SANDY VALLEY WATER DISTRICT
		PRESTONSBURG CITY UTILITIES COMMISSION
		MUD CREEK WATER DISTRICT
		MOUNTAIN WATER DISTRICT
		CITY OF PIKEVILLE
		CITY OF JENKINS
		CITY OF ELKHORN CITY

the City of Williamson, West Virginia. Generally, water source issues are not problematic in Pike County; the Russell Fork, the Levisa Fork, and the Tug Fork are reliable sources. Fishtrap Reservoir, upstream from Pikeville, can augment flows of the Levisa at Pikeville, assuring, by agreement, that a withdrawal of 6.0mgd will be possible at all times.

The small municipal system, Elkhorn City, provides service primarily to residents of the City. The Pikeville distribution system primarily serves its residential communities. However the City's water treatment plant was designed as a region-serving facility and sells water to three adjacent water districts. The plant and intake facility are undergoing renovation at present. The Pikeville system is managed pursuant to a contract with a private operations and maintenance company, since the mid 1980's.

Mountain Water District's development of facilities and expansion of service throughout Pike County can only be described as meteoric. With the exception of those relatively small areas served by several of the former water districts (Marrowbone Water District, Shelby Valley Water District, Pond Creek Water District, and Johns Creek Water District) virtually all water development in the County has occurred within the last 15 years via the Mountain Water District. A product of an extensive merger, the new district has encountered significant growth pains. However, the basic hydraulic plan for this incomparably large system within the Big Sandy Region is sound. Management achieves increasingly better control of routine operations as well as continued expansions over time.

ELKHORN WATER DEPARTMENT

PWSID: 0980120
System Type: ..... COMMUNITY
Owner Type: ..... MUNICIPAL
Surface Source: ..... RUSSEL FORK
Purchase Source:
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD): 0.40
Percent Daily Average Production: 60.00
Total Tank Storage Capacity (gallons): 200,000.00
Total Service Connections: 655.00
Number of Employees: 4.00
Treatment Operator Class: 2D
Distribution Operator Class: 2A
Customer Rate for 1,000 Gallons: ..... Not available
O/M costs 1997: ..... Not available

O/M costs per Service Connection: ..... Not available
Net Revenue 1997: ..... Not available
Total Water Produced 1997 (gallons): ..... Not available
Water Sold 1997 (gallons): ..... Not available
Unaccounted-for Water 1997 (%): ..... Not available

Elkhorn City Water Department is located in Pike County. This municipal system is located on the Russell Fork and consists in a 0.4mgd water treatment plant and two storage tanks (207,000 gallons) supplying its distribution system. The water source is Russell Fork/Levisa Fork of the Big Sandy River. The system is currently operating at approximately 50% of capacity. Generally, the extent of the system is co-terminus with the City's corporate boundaries. There are 655 customer connections of which 585 are residential and 70 are commercial. The system is operated by a certified water treatment plant operator who is also a Class II distribution system operator. Two additional staff assists him. There is one support staff/clerk providing financial management for the system.

PIKEVILLE WATER DEPARTMENT

PWSID: 0980350
System Type: ..... COMMUNITY
Owner Type: ..... MUNICIPAL
Surface Source: ..... LEVISA FORK OF BIG SANDY
Purchase Source:
Well Source:
Sells Water to: ..... SANDY VALLEY WATER DISTRICT
Treatment Plant Capacity (MGD): 6.00
Percent Daily Average Production: 58.00
Total Tank Storage Capacity (gallons): 2,660,000.00
Total Service Connections: 2,950.00
Number of Employees: 10.00
Treatment Operator Class: 2D
Distribution Operator Class: 4A
Customer Rate for 1,000 Gallons: 4.32
O/M costs 1997: ..... Not available
O/M costs per Service Connection: ..... Not available
Net Revenue 1997: ..... Not available
Total Water Produced 1997 (gallons): ..... Not available
Water Sold 1997 (gallons): ..... Not available
Unaccounted-for Water 1997 (%): ..... Not available

The City of Pikeville operates the water utility as a department of city government. The City contracts with Professional Service Group, a private contractor, for provision of all services related to operation and management of this system. The contractor employs 5 certified water treatment plant operators and 5 certified distribution system operators to

manage the system. The City has a 4.5mgd water treatment plant, designed for upgrading to 6.0mgd, which is currently in planning. The water source is Levisa Fork of the Big Sandy river. New filter beds and new high service pumps at the intake, together with a 5th filter gallery at the treatment plant, will allow the increase treatment to 6.0mgd. Financing for the renovation of the intake system and plant modifications is in place. Principal construction material of transmission and service mains is ductile iron and PVC. Storage capacity is 2,660,000 gallons. Storage is provide by the system's 1.1mg clear well and an additional 15 ground storage tanks ranging in capacity from 30,000 gallons to 1.0mg located throughout the system. Of the 2,950 customer connections, 2,395 are residential and 555 are commercial. Included in the commercial sales totals as one discrete customer each are those water purchase contracts with Mountain Water District, Mud Creek Water District, and Sandy Valley Water District. The in-city customer pays $17.25 for 5,000 gallons of water, while the out-of-city customer on the City's system pays $25.95. The rate charged the respective water districts varies according to point of sale.

The development potential for the City of Pikeville is generally good based on the expected continuing growth along existing service mains. Unincorporated areas outside the radius of the City are presently served by either Mountain Water or the Sandy Valley Water District, and the respective growth of these systems will obviously impact the Pikeville system's future consequent upon their reliance on the City for treated water.

MOUNTAIN WATER DISTRICT

PWSID: 0980575
System Type: ..... COMMUNITY
Owner Type: ..... WATER DISTRICT
Surface Source: ..... RUSSELL FORK/LEVISA FORK
Purchase Source:
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD): 0.60
Percent Daily Average Production: 74.00
Total Tank Storage Capacity (gallons): 7,700,000.00
Total Service Connections: 10,300.00
Number of Employees: 51.00
Treatment Operator Class: 3D
Distribution Operator Class: 3A
Customer Rate for 1,000 Gallons: 6.44
O/M costs 1997: 3,548,047.00
O/M costs per Service Connection: 357.95

Net Revenue 1997:	893,262.00
Total Water Produced 1997 (gallons):	184,768,000.00
Water Sold 1997 (gallons):	693,061,000.00
Unaccounted-for Water 1997 (%):	26.74

Created by the merger of the Johns Creek, Pond Creek, Marrowbone Creek, and Shelby Valley water districts, the countywide District has grown in the last twelve years to be the largest water distributor in eastern Kentucky. The system has 10,452 service connections, of which 9,315 are residential and 1,137 are commercial/other. There are 50 water storage tanks in the system ranging from 1,000g to 1.0mg. The majority of tanks range from 100,000 to 300,000 gallons with a total, system wide storage capacity of 7.7mg. Managed by a five-member commission, the superintendent and 51 employees operate a 0.6 mgd water treatment plant, and maintain the massive distribution system of 479 miles of line.

The small, antiquated Marrowbone water plant is costly to operate and will be taken out of service once the proposed 2.0mgd, expandable to 4.0mgd plant is constructed. To be located at Road Fork on US 460, in the southeastern portion of the county, the new plant will provide service capacity to the District in two directions via 12" mains, back towards existing lines now served by the Marrowbone plant and toward Grapevine via Ferrel's Creek. Additionally, the plant will provide a cost-effective alternative to the City of Elkhorn City as it considers replacement of its treatment plant.

The District has encountered significant growth pains consequent upon its accelerated construction and its desire to respond to ever continuing demand for expanded service in the last several years, sometimes at the expense of routine operation and maintenance. However, an aggressive water loss control program focused on main line breaks has yielded major loss reductions. An equally aggressive program focused on service lines and meter settings is now underway and is expected to achieve similar results.

The District's potential for development is limited only by its capacity to serve, i.e., the design limits of its existing infrastructure. The system's basic hydraulic plan is structurally sound and capable of meeting the demands of future growth and development. Supported by a consumer willingness to pay more than has been the norm in other communities, needed expansions are presently held to small, incremental projects as a consequence of limited fiscal assistance at the state and federal levels.

Mountain Water District has current plans calling for construction of a new 2.0 mgd water treatment plant with the capability of expanding to a 4.0 mgd. The new plant is to be located at Road Fork on US 460, in the southeastern portion of the county and will provide service capacity to the District in two directions via 12" mains, back towards existing lines now served by the Marrowbone plant and toward Grapevine via Ferrel's Creek.

Total project costs on the proposed plant project are: $ 4,970,994.90

OTHER SYSTEMS

WHITE ACRES MOBILE HOME PARK

White Acres Mobile Home Park is located in Pike County and serves a population of 26 with 8 service connections. The private, community system has a treatment capacity of 5000 gallons per day. The water source is ground water from wells.

LIN-CORB MOBILE HOME PARK

Lin-Corb Mobile Home Park is located in Pike County and serves a population of 23 with 23 service connections. The private, community system has a treatment capacity of gallons per day and a storage capacity of gallons. The water source is ground water from wells..

ROADFORK DEV/CALLOWAY MINE

Roadfork Dev/Calloway Mine is located in Pike County and serves a population of 42 with 1 service connection. The private, non-transient non-community system has a treatment capacity of 7,000 gallons per day. The water source is ground water from wells.

GRIFFEY TRAILER PARK

Griffey Trailer Park serves a population of 28 with 8 service connections. The private, community system has a treatment capacity of 5,000 gallons per day. The water source is ground water from wells.

JOHNSON MOBILE HOME PARK

Johnson Mobile Home Park serves a population of 15 with 20 service connections. The private, transient non-community system has a treatment capacity of 1,100 gallons per day. The water source is ground water from wells.

SLONES TRAILER PARK

Slones Trailer Park serves a population of 52 with 13 service connections. The private, community system has a treatment capacity of 8,000 gallons per day. The water source is ground water from wells.

UPPER LEVISA HEALTH CLINIC

Upper Levisa Health Clinic is located in Pike County and serves a population of 75 with 1 service connection. The private, non-transient non-community system has a treatment capacity of 7,200 gallons per day. The water source is ground water from wells.

FEDS CREEK HIGH SCHOOL

Feds Creek High School serves a population of 425 with 1 service connection. The local, non-transient non-community system has a treatment capacity of 30,000 gallons per day. The water source is ground water from wells.

JACKSON ROWE ELEMENTARY SCHOOL

Jackson Rowe Elementary School serves a population of 275 with 1 service connection. The local, non-transient non-community system has a treatment capacity of 30,000 gallons per day. The water source is ground water from wells.

PIKEVILLE COAL CO-CHISHOLM MINE

Pikeville Coal Co-Chisholm Mine serves a population of 240 with 1 service connection. The private, non-transient non-community system has a treatment capacity of 40,000 gallons per day. The water source is ground water from wells.

LODESTAR ENERGY

Lodestar Energy serves a population of 33 with 2 service connections. The private, non-transient non-community system has a treatment capacity of 6,000 gallons per day. The water source is ground water from wells.

L & J COAL MART

L & J Coal Mart serves a population of 30 with 1 service connection. The private, transient non-community system has a treatment capacity of 7,000 gallons per day. The water source is ground water from wells.

FAMILY FUN BOWLING INC

Family Fun Bowling Inc serves a population of 25 with 2 service connections. The private, transient non-community system has a treatment capacity of 5,000 gallons per day. The water source is ground water from wells.

COSTAIN COAL INC

Costain Coal Inc serves a population of 40 with 1 service connection. The private, transient non-community system has a treatment capacity of 8000 gallons per day The water source is ground water from wells.

ROADFORK DEV/BURNWELLS

Roadfork Dev/Burnwells Energy serves a population of 31 with 1 service connection. It is a private, non-transient non-community system. The water source is ground water from wells. There are people employed.

PRIVATE DOMESTIC SYSTEMS

About 38,000 people in Pike county rely on private domestic water supplies: 36,000 on wells and 2,000 on hauled water, cisterns and other sources.

More than three-quarters of the wells drilled in valley bottoms and almost three-quarters of the wells drilled on hillsides are adequate for domestic supply needs. Only some wells on hilltops and ridges are adequate for domestic needs. Drilled wells more than 200 feet deep in valleys may yield enough water for small municipal or industrial supplies.

Ground water obtained from most wells is moderately hard and contains noticeable amounts of iron. In the northwestern quarter of the county, salty water may be found in wells less than 100 feet below the level of the principal valley bottoms. In the rest of the county, salty water in wells probably will not be found less than 200 feet below the level of the principal valley bottoms.

A few springs supply sufficient quantities of water for domestic use, usually produces less than 5 gpm.